

CLAIMS:

1. An apparatus for needling a non-woven material with at least one needleboard which is drivable in a reciprocating manner by at least one eccentric drive in the needle-penetration direction, which needleboard is linked to the eccentric drive via push rods each displaceably held in a guide sleeve, which eccentric drive consists of two parallel eccentric shafts which are drivable in opposite directions and are provided with connecting rods, with the guide sleeves being swivelably held about an axle extending parallel to the eccentric shafts, characterized in that the two eccentric shafts (2, 3) are provided with a different angular position (ϕ) and that the connecting rods (4) of the two eccentric shafts (2, 3) extend in an inclined manner with respect to each other.
2. An apparatus as claimed in claim 1, characterized in that in the arrangement of one needleboard (1) the connecting rods (4) act upon the push rods via coaxial link axles (5).
3. An apparatus as claimed in claim 1, characterized in that when two needleboards (1) are arranged successively behind one another in the direction (11) of passage of the non-woven material the push rods (6) of the two needleboards (1) are connected by a coupler (19) on which act the connecting rods (4) of the eccentric shafts (2, 3), and that the coupler (19) is held in a lifting guide means (22) and can be swiveled in a middle position extending in the needle-penetration direction about an axle (23) which is parallel to the eccentric shafts (2, 3).
4. An apparatus as claimed in one of the claims 1 to 3, characterized in that the two eccentric shafts (2, 3) are adjustable in their mutual angular position.